

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.-11. (canceled).

12. (currently amended) A system for manufacturing a fullerene derivative, comprising:

means for generating high electron temperature plasma ~~whose~~ configured to maintain an electron energy ~~is kept~~ at 15 to 50 eV ~~in order~~ to generate a positive monovalent ion M^+ from a gas containing an atom M ~~which acts~~ acting as a moiety in the production of a fullerene derivative;

fullerene introducing means for introducing a fullerene into plasma comprised of M^+ and electrons to produce a fullerene ion; and

a deposition substrate ~~where~~ whereon a fullerene derivative produced as a result of a reaction between the fullerene ion and M^+ ~~is allowed to deposit~~ is deposited.

13. (currently amended) A system for manufacturing a fullerene derivative, comprising:

means for generating high electron temperature plasma ~~whose~~ configured to maintain an electron energy ~~is kept~~ at 15 to 50 eV ~~in order~~ to generate a positive monovalent ion M^+ from a

gas containing an atom M ~~which acts~~ acting as a moiety in the production of a fullerene derivative;

fullerene introducing means for introducing a fullerene; and

a deposition substrate,

wherein plasma comprised of M^+ is driven against the deposition substrate while at the same time fullerene ejected via the fullerene introducing means is allowed to impinge onto the deposition substrate so that M^+ and fullerene react with each other to produce a fullerene derivative which deposits on the deposition substrate.

14. (previously presented) The system as described in Claim 12 for manufacturing a fullerene derivative wherein the high electron temperature plasma generating means comprises at least a pair of coils for generating a mirror field which prohibits the dispersion of positive ions produced.

15. (previously presented) The system as described in Claim 13 for manufacturing a fullerene derivative wherein the high electron temperature plasma generating means comprises at least a pair of coils for generating a mirror field which prohibits the dispersion of positive ions produced.

16. (previously presented) The system as described in Claim 12 for manufacturing a fullerene derivative wherein the high electron temperature plasma generating means comprises at least a pair of coils for generating a mirror field which prohibits the dispersion of positive ions produced, and a four phased helical antenna located between the pair of coils.

17. (previously presented) The system as described in Claim 13 for manufacturing a fullerene derivative wherein the high electron temperature plasma generating means comprises at least a pair of coils for generating a mirror field which prohibits the dispersion of positive ions produced, and a four phased helical antenna located between the pair of coils.

18. (previously presented) The system as described in Claim 12 for manufacturing a fullerene derivative wherein the high electron temperature plasma generating means comprises gas introducing means, a microwave generator for exciting gas to produce positive ions therefrom, a pair of coils for generating a mirror field which prohibits dispersion of the positive ions produced, and a four phased helical antenna located between the pair of coils.

19. (previously presented) The system as described in Claim 13 for manufacturing a fullerene derivative wherein the

high electron temperature plasma generating means comprises gas introducing means, a microwave generator for exciting gas to produce positive ions therefrom, a pair of coils for generating a mirror field which prohibits dispersion of the positive ions produced, and a four phased helical antenna located between the pair of coils.

20. (currently amended) The system as described in claim 12 for manufacturing a fullerene derivative, further comprising:

electron energy control means for controlling the energy of electrons in a plasma to be in ~~the~~ a range of 1 to 10 eV, the electron energy control means being located downstream of the high electron temperature plasma generating means in terms of the flow of plasma.

21. (previously presented) The system as described in Claim 20 for manufacturing a fullerene derivative wherein the electron energy control means controls the energy of electrons by applying a control voltage to an electrode located upstream of the fullerene introducing means in terms of the flow of plasma.

22. (previously presented) The system as described in Claim 12 for manufacturing a fullerene derivative.